



BSC (HONS) IN PSYCHOLOGY
PLU 3310 - BIOLOGICAL PSYCHOLOGY- LEVEL 4
FINAL EXAMINATION PAPER
DURATION: 03 HOURS

DATE: 25.10.2024

TIME: 9.30 A.M -12.30 P.M

SECTION 2: STRUCTURED ESSAY QUESTIONS (60 MARKS)

Choose 04 out of the 06 questions given below and answer using the provided answer sheets

2.1 Human body is made up of biochemical and structural building blocks.

- a) Name four laboratory techniques used to investigate the structural, functional or both aspects of the nervous system. (4 marks)
- b) Name three main classes of carbohydrates with an example of each. (6 marks)
- c) Describe the function of the cytoskeleton. (5 marks)

2.2 Nervous system is one of the most complex systems in the human body.

- a) What are the three basic functions of the human nervous system? (3 marks)
- b) Explain the difference between the sympathetic and parasympathetic nervous systems in terms of their functions. (8 marks)
- c) Describe the function of the blood-brain barrier. (4 marks)

2.3 Cerebral cortex and cerebral hemispheres are integral to many aspects of human cognition and behaviour.

- a) Explain the functions associated with different lobes of the cerebral cortex. (8 marks)
- b) Describe the primary functions of the limbic system. (4 marks)
- c) What are the types of fibers found in the cerebral hemisphere? (3 marks)

2.4 Central Nervous system is composed of brain and spinal cord. Understanding the structure and the function of these are important reveal how neurological processes shape behaviour.

- a) Name the two main functions of the spinal cord. (2 marks)
- b) Explain the two types of pain sensation (7 marks)
- c) Explain the cortical lateralization in brain function with examples. (6 marks)

- 2.5 Vision and hearing are crucial for survival among the five human senses. Understanding their functions and potential defects is important as these senses play a key role in how we perceive, interpret, and respond to our environment.**
- a) Explain the common defects of the image-forming mechanism of the human eye. (9 marks)
 - b) Describe the function of cochlea in hearing. (3 marks)
 - c) Define myocardial infarction. (Heart Attack) (3 marks)
- 2.6 Functioning of the nervous system relies on various cellular components that facilitate signal transmission.**
- a) Explain the importance of myelin sheath neuron function. (2 marks)
 - b) Describe the function of neuromodulators at synapses. (5 marks)
 - c) Describe the function of four main types of neuroglia found in the central nervous system. (8 marks)

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